

WHAT IS CLAIMED IS:

1. A polymorphous form of a hydrochloride salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide.
2. The polymorphic form of the hydrochloride salt according to Claim 1 that is characterized by an X-ray powder diffraction pattern having diffraction angles of: 4.49, 9.08, 11.05, 17.76, 19.50, 21.36, 22.99, 27.69, 33.07 and 34.94.
3. The polymorphic form of the hydrochloride salt according to Claim 2 having multiple diffraction peaks between 2° and 35° 2-theta and a melting endotherm of 273°C at a rate of 5°C per minute.
4. The polymorphic form of the hydrochloride salt according to Claim 1 that is characterized by an X-ray diffraction pattern having diffraction angles of: 9.14, 11.13, 15.65, 17.84, 19.60, 21.44, 23.92, 24.46, 25.17, 25.80, 25.98, 28.35 and 29.65.
5. The polymorphic form of the hydrochloride salt according to Claim 4 having multiple diffraction peaks between 2° and 30° 2-theta and a melting endotherm at 264°C at a rate of 5°C per minute.
6. The polymorphic form of the hydrochloride salt according to Claim 1 that is characterized by an X-ray powder diffraction pattern having diffraction angles of: 4.13, 8.19, 9.97, 12.27, 15.21, 15.91, 16.56, 19.95, 20.23, 24.88 and 26.56.
7. The polymorphic form of the hydrochloride salt according to Claim 6 having multiple diffraction peaks between 2 and 30° 2-theta and a melting endotherm of 246°C at a rate of 10°C per minute.
8. The polymorphic form of the hydrochloride salt according to Claim 1 that is characterized by an X-ray powder diffraction pattern having diffraction angles of: 10.17, 12.74, 15.01, 15.35, 16.09, 17.29, 17.89, 18.42, 18.88, 19.04, 20.00, 20.45, 21.49, 22.78, 24.44, 25.33, 26.04, 28.86, 30.31 and 31.00.

9. The polymorphic form of the hydrochloride salt according to Claim 8 having multiple diffraction peaks between 2° and 35° 2-theta and a melting endotherm of 265°C at a rate of 5°C per minute.

5 10. A hydrochloride ethanolate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide characterized by an X-ray powder diffraction pattern having diffraction angles of: 6.09, 10.96, 12.03, 16.52, 16.79, 17.99, 18.31, 18.41, 19.87, 20.01, 21.42, 21.63, 24.82, 25.04, 25.44, 25.81, 27.16, 29.92, 34.89, and 36.43.

10 11. The hydrochloride ethanolate salt according to Claim 10 having multiple diffraction peaks between 2° and 40° 2-theta and a melting endotherm of 268°C at a rate of 5°C per minute.

15 12. A tartrate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide characterized by an X-ray powder diffraction pattern having diffraction angles of: 10.22, 11.14, 13.44, 14.28, 16.76, 22.86, 24.98, 25.94, 28.72, and 29.86.

20 13. The tartrate salt according to Claim 12 having multiple diffraction peaks between 2° and 30° 2-theta and a melting endotherm of 150°C at a rate of 10°C per minute.

25 14. A polymorphous form of a citrate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide.

30 15. The polymorphic form of the citrate salt according to Claim 14 that is characterized by an X-ray powder diffraction pattern having multiple diffraction peaks between 2° and 30° 2-theta and a melting endotherm of 153°C at a rate of 10°C per minute.

35 16. The polymorphic form of the citrate salt according to Claim 14 that is characterized by an X-ray powder diffraction pattern having diffraction angles of: 2.04, 4.16, 16.21, 16.31, 16.94, 17.72, 18.66, 19.61, 20.34, 20.97, 21.28, 21.46, 22.94, 23.98, 27.10, 27.85, 28.30.

17. The polymorphic form of the citrate salt according to Claim 16 having multiple diffraction peaks between 2° and 30° 2-theta and a melting endotherm of 164°C at a rate of 5°C per minute.

5                    18. The polymorphic form of the citrate salt according to Claim 14 characterized by an X-ray powder diffraction pattern having diffraction angles of: 4.51, 14.07, 15.09, 15.55, 15.82, 17.02, 17.70, 18.60, 20.70, 22.42, 23.71, 24.52, 25.40, 26.13, 27.91, 28.46, 28.58.

10                   19. A polymorphous form of a besylate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide.

                    20. The polymorphic form of the besylate salt according to Claim 19 that is characterized by an X-ray powder diffraction pattern having diffraction  
15 angles of: 9.54, 9.80, 12.90, 15.99, 18.54, 20.82, 21.16, 24.51.

                    21. The polymorphic form of the besylate salt according to Claim 20 having multiple diffraction peaks between 2° and 25° 2-theta and a melting  
endotherm of 234°C at a rate of 5°C per minute.

20                   22. The polymorphic form of the besylate salt according to Claim 19 that is characterized by an X-ray powder diffraction pattern having diffraction angles of: 8.66, 15.88, 16.27, 18.05, 18.43, 20.73, 22.94, 23.06, 23.64, 23.92, 24.34, 24.51.

25                   23. The polymorphic form of the besylate salt according to Claim 22 having multiple diffraction peaks between 2° and 25° 2-theta and a melting endotherm of 232°C at a rate of 5°C per minute.

30                   24. A pharmaceutical composition that is comprised of a polymorphous form of the hydrochloride salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 1 and a pharmaceutically acceptable carrier.

25. A pharmaceutical composition that is comprised of the hydrochloride ethanolate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 10 and a pharmaceutically acceptable carrier.

26. A pharmaceutical composition that is comprised of the tartrate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 12 and a pharmaceutically acceptable carrier.

27. A pharmaceutical composition that is comprised of a polymorphous form of the citrate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 14 and a pharmaceutically acceptable carrier.

28. A pharmaceutical composition that is comprised of a polymorphous form of the besylate salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 19 and a pharmaceutically acceptable carrier.

29. A method of treating or preventing cancer in a mammal in need of such treatment which is comprised of administering to said mammal a therapeutically effective amount of the crystalline form of the hydrochloride salt of 4-[2-(5-cyano-thiazol-2-ylamino)-pyridin-4-ylmethyl]-piperazine-1-carboxylic acid methylamide in accordance with Claim 1.

30. A method of treating cancer or preventing cancer in accordance with Claim 29 wherein the cancer is selected from cancers of the brain, genitourinary tract, lymphatic system, stomach, larynx and lung.

31. A method of treating or preventing cancer in accordance with Claim 29 wherein the cancer is selected from histiocytic lymphoma, lung adenocarcinoma, small cell lung cancers, pancreatic cancer, glioblastomas and breast carcinoma.

32. A method of treating or preventing a disease in which angiogenesis is implicated, which is comprised of administering to a mammal in need of such treatment a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

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33. The method in accordance with Claim 32 wherein the disease is an ocular disease.

34. The method according to Claim 33, wherein the ocular disease is retinal vascularization, diabetic retinopathy, age-related macular degeneration, retinal ischemia or macular edema.

35. A method of treating or preventing inflammatory diseases which comprises administering to a mammal in need of such treatment a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

36. A method according to Claim 35 wherein the inflammatory disease is selected from rheumatoid arthritis, psoriasis, contact dermatitis and delayed hypersensitivity reactions.

37. A method of treating or preventing a tyrosine kinase-dependent disease or condition which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

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38. A method of treating or preventing bone associated pathologies selected from osteosarcoma, osteoarthritis, and rickets which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

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39. The composition of Claim 24 further comprising a second compound selected from:

- 1) an estrogen receptor modulator,
- 2) an androgen receptor modulator,
- 3) retinoid receptor modulator,

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- 4) a cytotoxic agent,
- 5) an antiproliferative agent,
- 6) a prenyl-protein transferase inhibitor,
- 7) an HMG-CoA reductase inhibitor,
- 5 8) an HIV protease inhibitor,
- 9) a reverse transcriptase inhibitor, and
- 10) another angiogenesis inhibitor.

40. The composition of Claim 39, wherein the second compound is  
 10 another angiogenesis inhibitor selected from the group consisting of a tyrosine kinase  
 inhibitor, an inhibitor of epidermal-derived growth factor, an inhibitor of fibroblast-  
 derived growth factor, an inhibitor of platelet derived growth factor, an MMP  
 inhibitor, an integrin blocker, interferon- $\alpha$ , interleukin-12, pentosan polysulfate, a  
 cyclooxygenase inhibitor, carboxyamidotriazole, combretastatin A-4, squalamine,  
 15 6-O-chloroacetyl-carbonyl)-fumagillol, thalidomide, angiostatin, troponin-1, and an  
 antibody to VEGF.

41. The composition of Claim 39, wherein the second compound is  
 an estrogen receptor modulator selected from tamoxifen and raloxifene.

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42. A method of treating cancer which comprises administering a  
 therapeutically effective amount of the polymorphic form of the hydrochloride salt of  
 Claim 1 in combination with radiation therapy.

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43. A method of treating or preventing cancer which comprises  
 administering a therapeutically effective amount of the polymorphic form of the  
 hydrochloride salt of Claim 1 in combination with a compound selected from:

- 1) an estrogen receptor modulator,
- 2) an androgen receptor modulator,
- 30 3) retinoid receptor modulator,
- 4) a cytotoxic agent,
- 5) an antiproliferative agent,
- 6) a prenyl-protein transferase inhibitor,
- 7) an HMG-CoA reductase inhibitor,
- 35 8) an HIV protease inhibitor,

- 9) a reverse transcriptase inhibitor, and
- 10) another angiogenesis inhibitor.

5        44. A method of treating cancer which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1 in combination with radiation therapy and a compound selected from:

- 1) an estrogen receptor modulator,
- 2) an androgen receptor modulator,
- 3) retinoid receptor modulator,
- 10       4) a cytotoxic agent,
- 5) an antiproliferative agent,
- 6) a prenyl-protein transferase inhibitor,
- 7) an HMG-CoA reductase inhibitor,
- 8) an HIV protease inhibitor,
- 15       9) a reverse transcriptase inhibitor, and
- 10) another angiogenesis inhibitor.

20       45. A method of treating or preventing cancer which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1 and paclitaxel or trastuzumab.

25       46. A method of treating or preventing cancer which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1 and a GPIIb/IIIa antagonist.

47. The method of Claim 61 wherein the GPIIb/IIIa antagonist is tirofiban.

30       48. A method of reducing or preventing tissue damage following a cerebral ischemic event which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

35       49. A method of treating or preventing cancer which comprises administering a therapeutically effective amount of polymorphic form of the hydrochloride salt of Claim 1 in combination with a COX-2 inhibitor.

50. A method of treating or preventing preeclampsia which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

5 51. A method of treating or preventing tissue damage due to bacterial meningitis which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

10 52. A method to treat or prevent endometrioses which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1.

15 53. A method of treating or preventing diabetic retinopathy which comprises administering a therapeutically effective amount of the polymorphic form of the hydrochloride salt of Claim 1 in combination with a PPAR- $\gamma$  agonist.